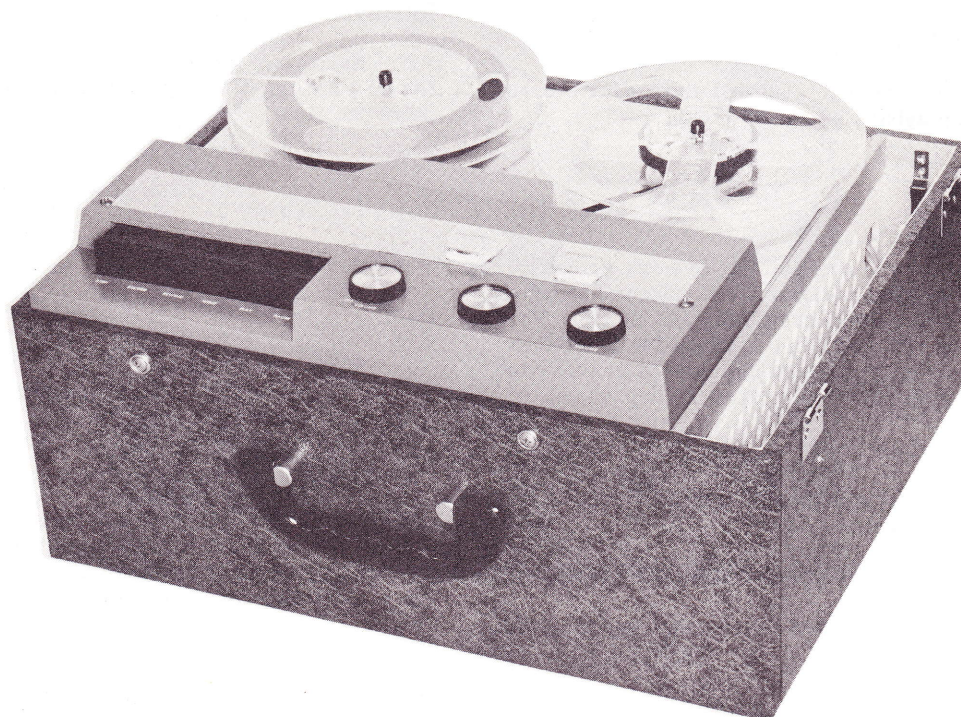


KNIGHT
MODEL KN-4060 (92RU774)



KNIGHT
MODEL KN-4060 (92RU774)

GENERAL INFORMATION

Knight Model KN-4060 is a three-speed tape recorder and can play back both monaural and stereophonic recordings.

Model KN-4060 will record and play back both monaural and stereo when connected to an appropriate amplifier system. Recordings can be made from a microphone, radio, phonograph, tuner, or TV set.

This model has three tape speeds, 7 1/2, 3 3/4 and 1 7/8 ips. A two-position equalization switch for 7 1/2 ips and 3 3/4 or 1 7/8 ips is provided. Using both tracks, recording times are as follow:

Tape Length	7 1/2 ips	3 3/4 ips	1 7/8 ips
1200 ft.	1 hour	2 hours	4 hours
1800 ft.	1 1/2 hours	3 hours	6 hours
2400 ft.	2 hours	4 hours	8 hours

This recorder operates on 60 cycles, 105-120 volts AC only.

Supplied By:

Allied Radio
100 N. Western Avenue
Chicago 80, Illinois

HOWARD W. SAMS & CO., INC. Indianapolis 6, Indiana

The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of CQ450

the particular type of replacement part listed. Reproduction or use, without express permission, of editorial or pictorial content, in any manner, is prohibited. No patent liability is assumed with respect to the use of the information contained herein. © 1961 Howard W. Sams & Co., Inc., Indianapolis 6, Indiana. Printed in U.S. of America



FUNCTION OF CONTROLS

Power On-Off, Volume Control #1

Turns power on and off for the entire unit. Regulates volume on monaural and first channel stereo playback. Determines the recording level on monaural and first channel stereo recordings.

Volume Control #2

Controls the record level and volume for stereo recording and playback on channel two.

Rotary Speed Selector

Selects the desired tape speed: 7-1/2, 3-3/4 or 1-7/8 ips. This control cannot be turned unless the pushbuttons are in the Stop position.

Equalization Switch

Equalizes the response for 7-1/2 ips speed in the up position, for 3-3/4 and 1-7/8 ips speeds in the down position.

FUNCTION OF PUSHBUTTONS

In order for the pushbuttons to work properly, they should be depressed firmly. All buttons lock into position when depressed except stop and pause. The recorder can be changed from one function to another immediately except from wind and rewind to play; in this case, the stop button must first be depressed.

Stop

Applies brake to both spindles and returns all pushbuttons to neutral.

Record

Moves the play-record switch into record position.

Rewind

Returns tape rapidly to supply reel. Moves wind-rewind pulley, increasing tension on rewind belt

which turns the supply spindle.

Wind

Moves tape rapidly in play and record direction. Moves wind-rewind pulley, increasing tension on wind belt which turns the takeup spindle.

Play

Moves the tape for playback (or recording, if Record button is depressed simultaneously). Brings pressure roller and pressure pads into position against the capstan and record head.

Pause

Stops the tape by removing the pressure roller from the capstan and applying the brakes to the spindle. Record or playback settings are not disturbed.

INPUT AND OUTPUT JACKS

The input and output jacks are located on the rear of the recorder. The top left jack is channel 1 input and lower left jack is channel 2 input. The two middle jacks are for monitoring; the upper for chan-

nel 1 and the lower for channel 2. The two jacks on the right are the output jacks; the upper for channel 1 and the lower for channel 2.

OPERATING INSTRUCTIONS

Threading the Tape

Place a reel of tape on the left spindle; empty reel on right spindle. Thread the tape in slot with shiny side toward the front of recorder. Insert loose end of tape into one of the slots in the empty reel and turn reel counterclockwise to take up slack in the tape.

To Wind or Rewind Tape

Depress the Wind or Rewind button to move the tape in the desired direction. Depress the Stop button to stop the tape. The recorder will stop automatically at the end of the reel.

To Make a Monaural Recording

Plug the microphone into the Low Level input jack. Set the rotary Speed Selector to the desired speed. Turn the power on with the On-Off-Volume

control #1. Allow sufficient time for the tubes to warm up. Depress the Record button and adjust Volume control #1 so the level meter will go into the red portion on the loudest passage. Hold the Record button down and depress the Play button until both are locked in the down position. If both buttons will not stay down or a buzzing sound is heard, the tape is not properly threaded. Depress the Stop button at the end of a recording; at the end of the tape, the recorder will stop automatically.

Hold the microphone approximately eight inches from the mouth when recording voice. Place the microphone two or three feet in front of the loudspeaker when recording from a radio, phonograph, or TV set.

Hold the Pause button down to interrupt a recording briefly. The recorder will continue to record when the Pause button is released.

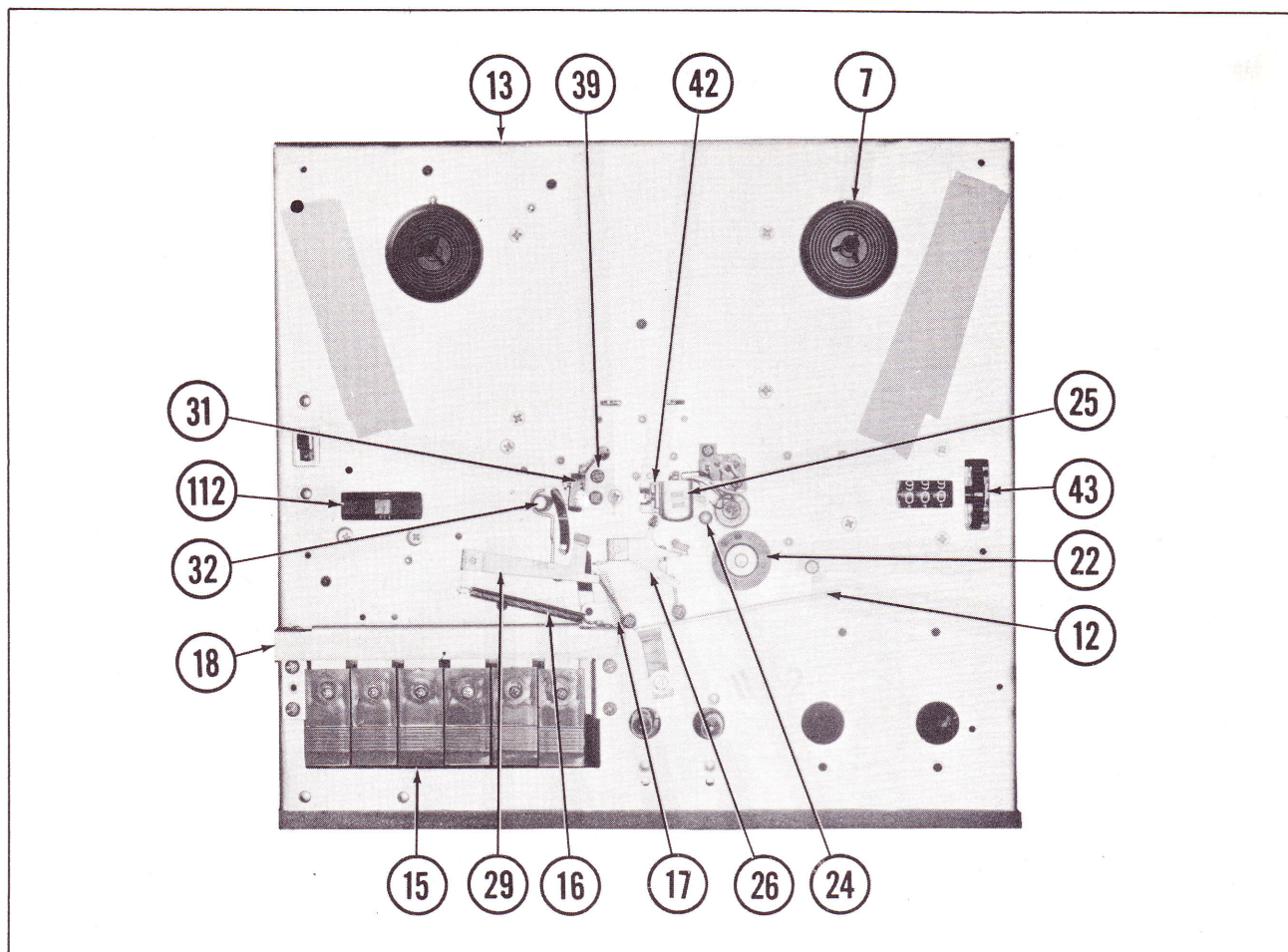


FIG.1 TOP VIEW OF MECHANISM WITH ESCUTCHEON REMOVED

KNIGHT
MODEL KN-4060 (92RU774)

It is possible to record directly from a radio, phonograph, tuner, or TV set by connecting a patch cord between the High Level jack and the desired instrument.

To Play Monaural Recordings

Thread the tape as described under "Threading the Tape". Connect the recorder to an amplifier system. Depress the Play button. Adjust Volume #1 control. Turn Volume #2 fully counterclockwise.

To Play Stereophonic Tapes

Connect the recorder to a stereo amplifier. Thread the tape and turn the recorder on. Depress the Play button and adjust Volume controls #1 and #2 until the volume level meters are fluctuating equally.

To Make a Stereophonic Recording

Plug one microphone into the upper input jack and another microphone into the lower input jack located on the rear of the recorder. Rotate the On-Off-Volume control #1 clockwise to turn the power on. Adjust Volume control #1 and Volume control #2 so the Level meters will register the same on the loudest passage of sound. Hold Record button down and depress the Play button until both are locked into position. If both buttons will not stay down or a buzzing noise is heard, the tape is not properly threaded.

Hold the microphone approximately eight inches from the mouth when recording voice and two or three feet from the loudspeaker when recording from a radio, phonograph, or TV set.

Hold the Pause button down to interrupt a recording briefly. The recorder will continue to record when the pause button is released.

Head Lifter

Push left lever of head lifter down for four-track recordings, and right lever down for two-track recordings.

To Edit and Splice Tape

Since one track cannot be spliced without affecting the other, recordings to be edited should be limited to one track tapes. Unwanted portions can be cut out and the desired selections joined together. Tapes should be cut at a slight diagonal and the ends joined together with splicing tape on the glossy side. Excess splicing tape should be trimmed from the sides of the tape.

NOTE: Use splicing tape only. Do not use regular cellophane tape.

FOLDER 9

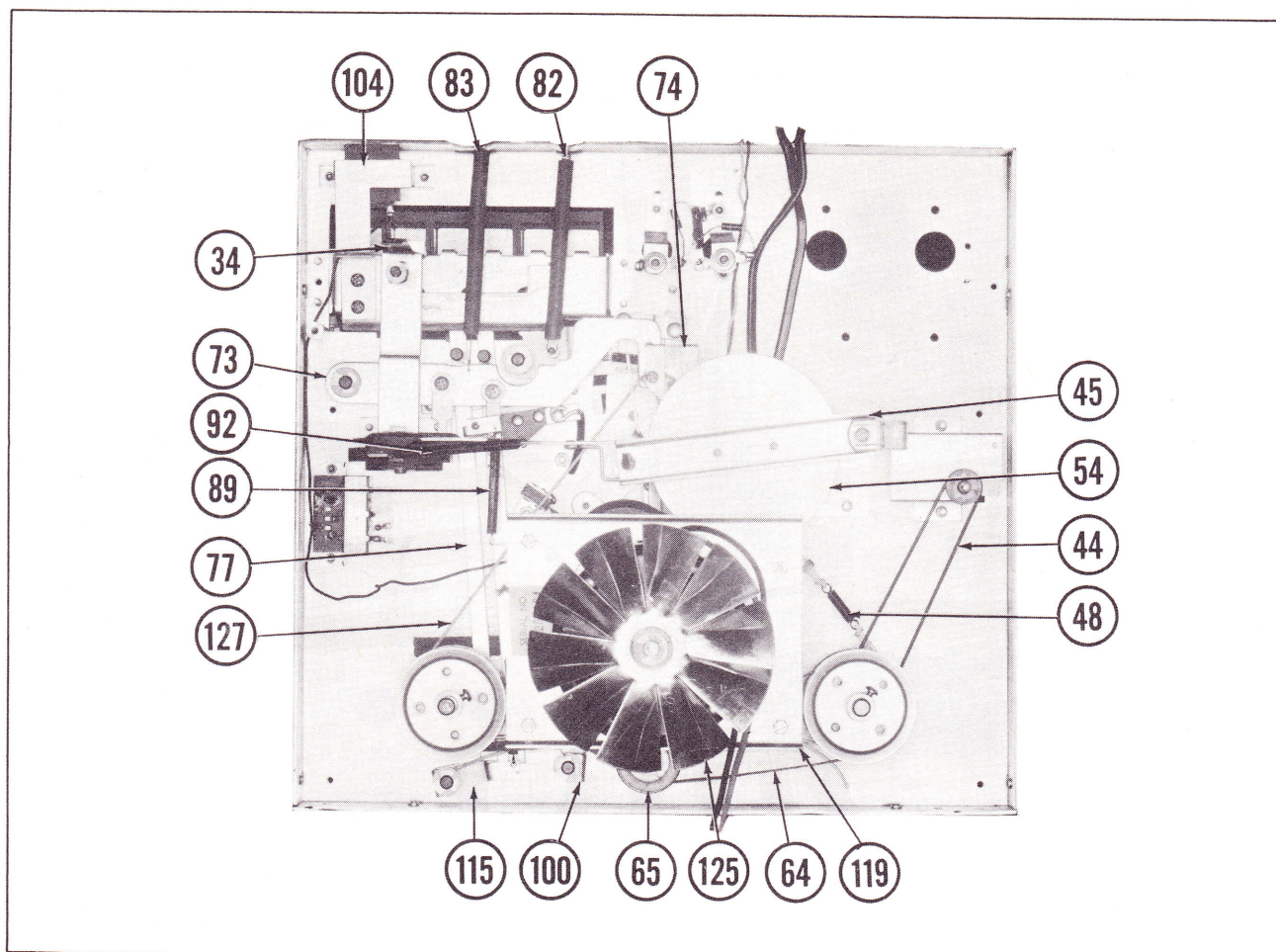


FIG. 2 BOTTOM VIEW OF MECHANISM

DISASSEMBLY

To Remove Recorder from Case

1. Remove the escutcheon from the input and output jacks.
2. Remove five screws from bottom of case and four bolts from side.

3. Set case on side and slide the mechanism forward.
4. Reverse foregoing procedure to reassemble.

ADJUSTMENTS

Erase Head

Loosen mounting nuts and set erase head so that top of head gap is even with top of tape. Tighten mounting nuts.

Record-Playback Head

1. Put head in up position by pushing down on left tab of head mounting bracket assembly (42).

2. Loosen mounting nuts at side of head mounting bracket assembly (42). Set top of upper gap even with top of tape. Tighten mounting nuts.
3. Adjust for maximum output by turning alignment screw, on right side of mounting bracket, while playing a prerecorded alignment tape.
4. Repeat steps 2 and 3.

CLEANING

Pressure roller (22), capstan, and recording head (25) should be cleaned occasionally of dirt and foreign matter with a soft cloth moistened with alcohol.

LUBRICATION

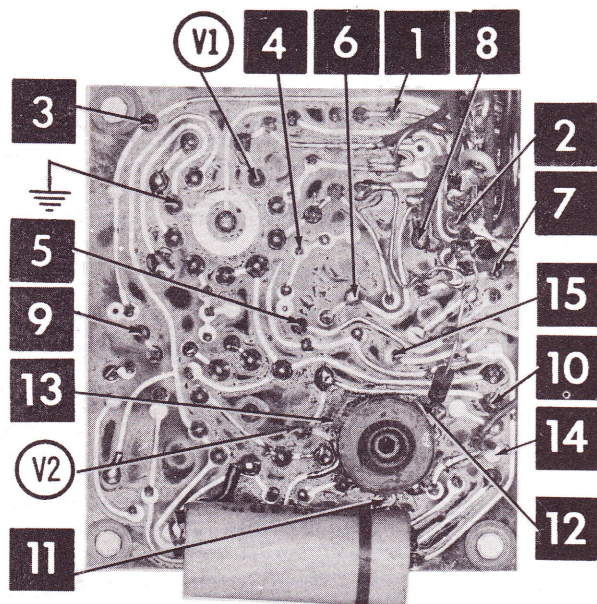
These recorders do not require lubrication under normal use. When disassembled for repair, wipe all bearings and sliding levers with a clean soft cloth and apply a thin coat of oil to their surfaces.

TROUBLE CHART

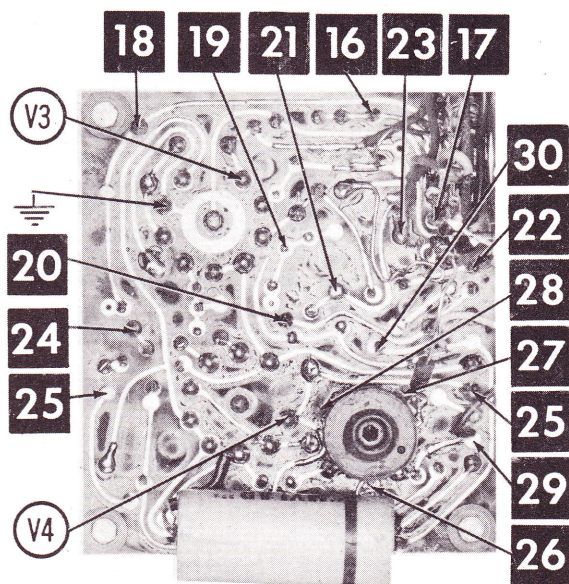
Symptom	Cause	Remedy
Tape fails to move when Play button is depressed.	<ol style="list-style-type: none"> 1. Worn or dirty pressure roller (22). 2. Supply spindle binds. 3. Not enough pressure to hold pressure roller (22) against flywheel (54). 4. Idler wheel spring (55) weak or missing. 5. Posts of idler arm pivot (56) rusted or plate bent. 	<ol style="list-style-type: none"> 1. Clean or replace pressure roller (22). 2. Clean supply spindle or loosen brake cord. 3. Increase tension of back tension spring (72). Pressure should be 16-24 oz. 4. Replace idler wheel spring (55). 5. Clean posts or straighten plate.
Tape fails to move when Wind or Rewind button is depressed.	<ol style="list-style-type: none"> 1. Idler belt(63)slipping or missing. 2. Brakes (127) too tight. 3. Wind or Rewind belts (64) broken or too tight. 4. Idler pulley ass'y. (65) binding. 	<ol style="list-style-type: none"> 1. Clean or replace idler drive belt (63). 2. Loosen brake cord (127) from the mounting stud side. 3. Replace wind or rewind belt (64). Idler pulley arm (61) should have $1/16'' \pm 1/32''$ travel from left to right in idle position without stretching the belts. 4. Remove idler pulley (65), clean shaft on arm idler pulley ass'y., oil, and replace pulley.
Variation in speed after recorder has been in operation.	<ol style="list-style-type: none"> 1. Pressure roller (22) too tight against flywheel (54). 2. Oil or dirt on flywheel (54), idler wheel (58), idler pulley (65), or motor pulley (124). 3. Wind-Rewind belts (64) too short. 4. Pressure pad springs (16) and (17) too tight. 	<ol style="list-style-type: none"> 1. Adjust as mentioned in remedy 3 of first symptom. 2. Clean surfaces of these parts with an industrial cleaner. 3. Adjust idler pulley arm (61) as mentioned in remedy 3 of preceding symptom. 4. Loosen springs by bending anchor back.
No speed change.	<ol style="list-style-type: none"> 1. Speed change bracket (111) arm jumped out of groove of idler arm (75). 2. Speed sliding post gummed up or corroded. 3. Support bracket of idler arm (75) jumped to left of play lever and cam bracket (71). 	<ol style="list-style-type: none"> 1. Reposition speed change bracket (111) arm in groove. Tighten lever retainer spring (92). Straighten speed change bracket (111). 2. Clean or replace sliding post and apply a thin film of oil. 3. Bend support bracket (75) down so it will clear top of play lever and cam bracket (71).
Automatic stop does not function.	<ol style="list-style-type: none"> 1. Solenoid arm (104) too far from solenoid. 	<ol style="list-style-type: none"> 1. Bend solenoid arm (104) so that there is no more than $1/8''$ clearance between solenoid arm (104) and solenoid.
Incomplete Erase.	<ol style="list-style-type: none"> 1. Dirty erase head (31). 2. Defective electrical components. 	<ol style="list-style-type: none"> 1. Clean erase head (31) with soft cloth and alcohol. 2. Check voltages and resistances. Replace defective part.
Recording weak or distorted.	<ol style="list-style-type: none"> 1. Dirty record-playback head (25). 2. Defective electrical components. 	<ol style="list-style-type: none"> 1. Clean record-playback head (25) with a soft cloth and alcohol. 2. Check voltages and resistances. Replace defective part.

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CHANNEL 1

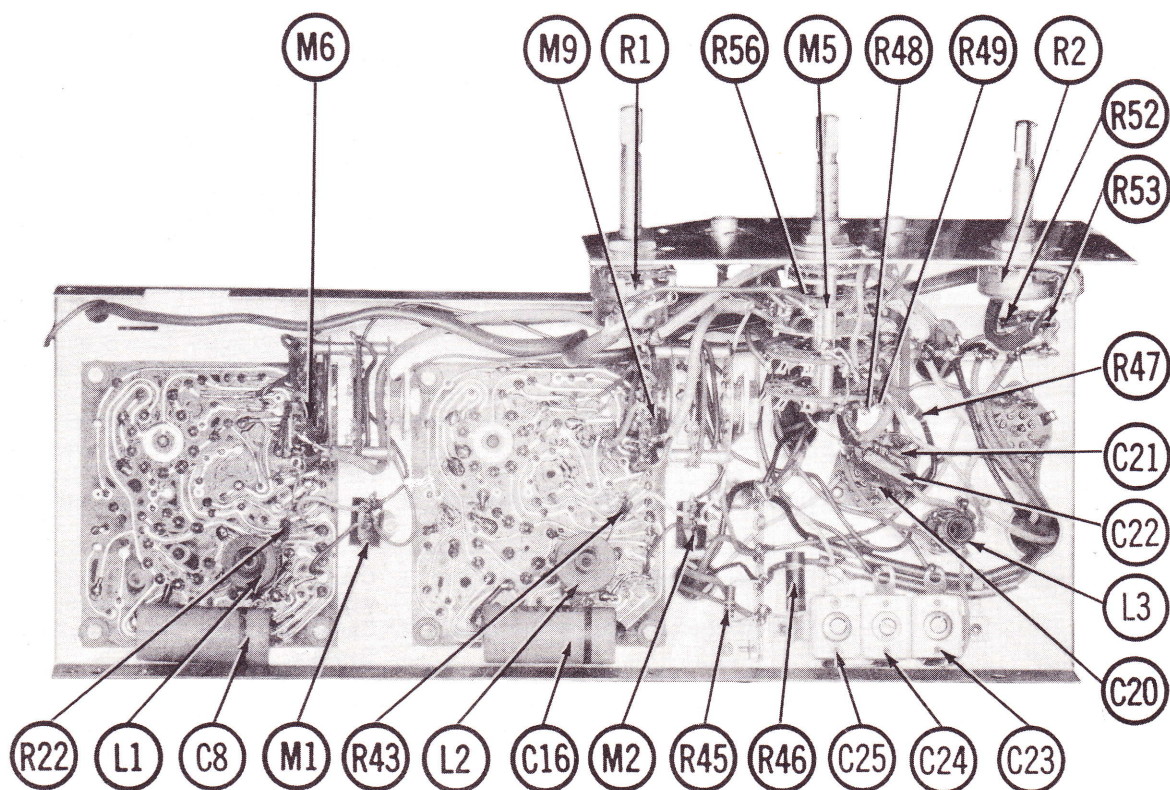


CHANNEL 2

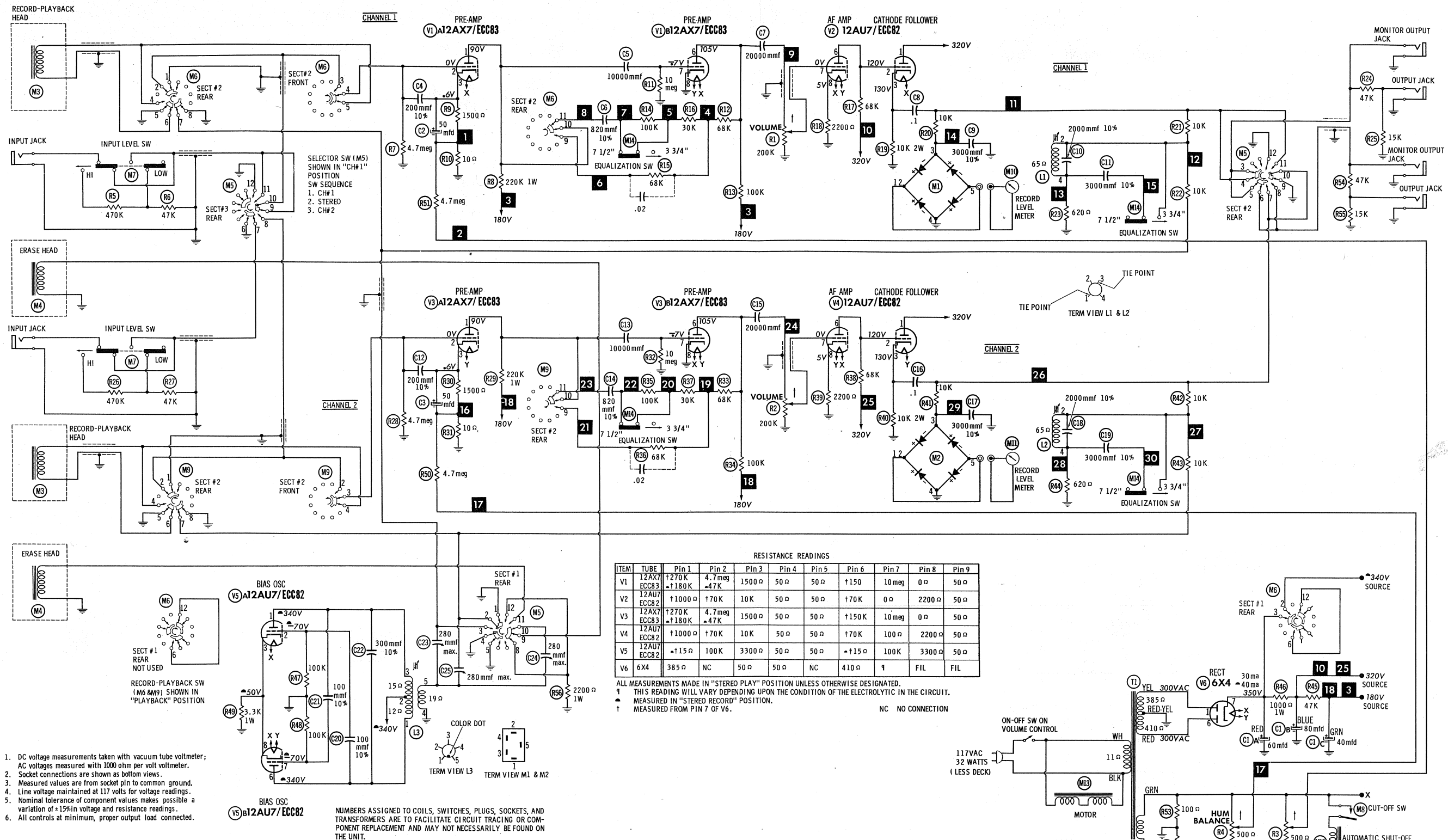
A Howard W. Sams **CIRCUITRACE** Photo

PRINTED BOARDS

ARROWS INDICATING TUBE LOCATIONS ARE POINTING TO PIN 1 UNLESS OTHERWISE INDICATED



CHASSIS-BOTTOM VIEW



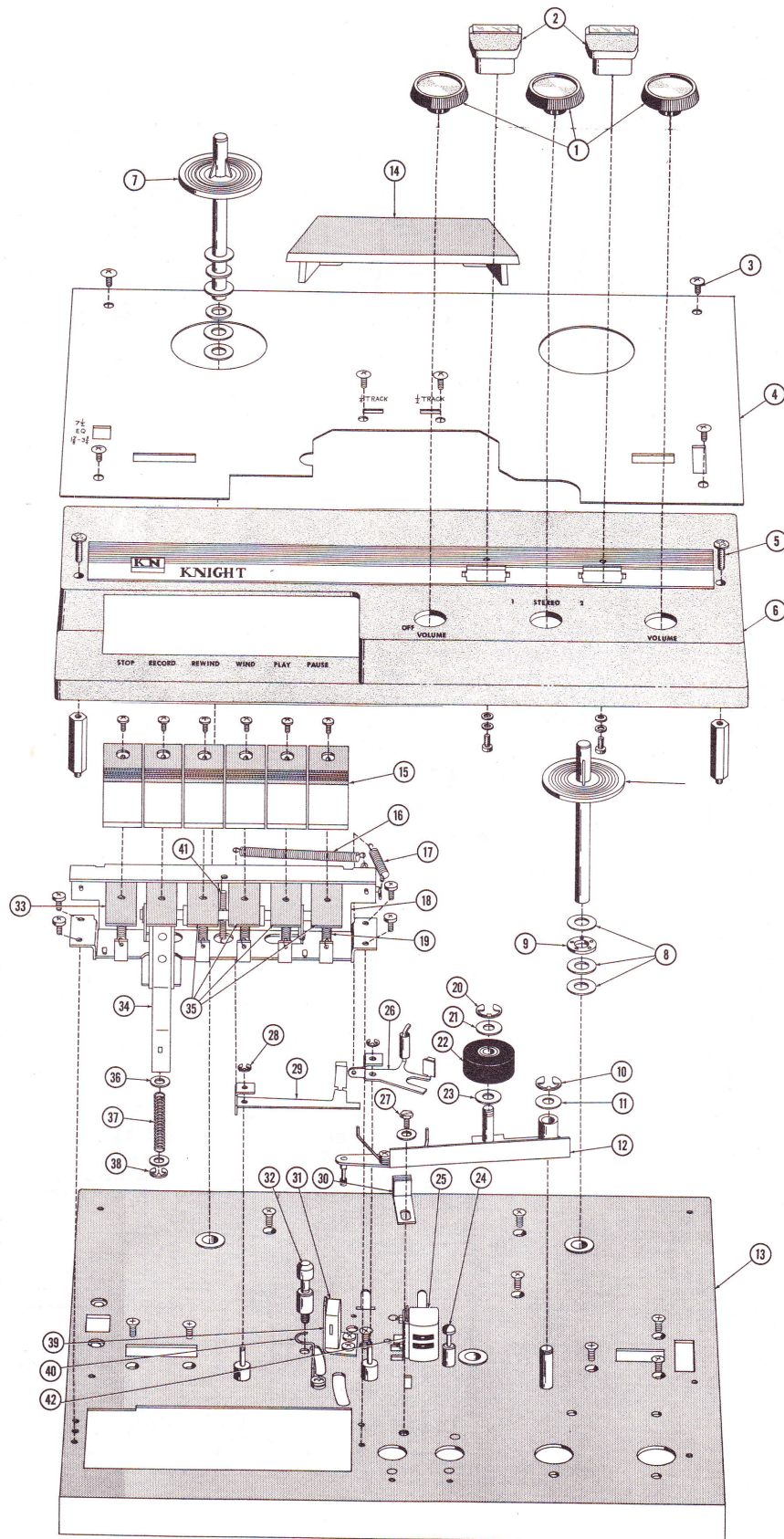
1. DC voltage measurements taken with vacuum tube voltmeter; AC voltages measured with 1000 ohm per volt voltmeter.
2. Socket connections are shown as bottom views.
3. Measured values are from socket pin to common ground.
4. Line voltage maintained at 117 volts for voltage readings.
5. Nominal tolerance of component values makes possible a variation of ±15% in voltage and resistance readings.
6. All controls at minimum, proper output load connected.

A PHOTOFAC STANDARD NOTATION SCHEMATIC
 with **CIRCUITRACE**
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KNIGHT
 MODEL KN-4060 (92RU7Z4)

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MODEL KN-4060 (92RU774)

FOLDER 9



A PHOTOFAC "EXPLODED" VIEW
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FIG.3A EXPLODED VIEW OF PARTS ABOVE BASE PLATE

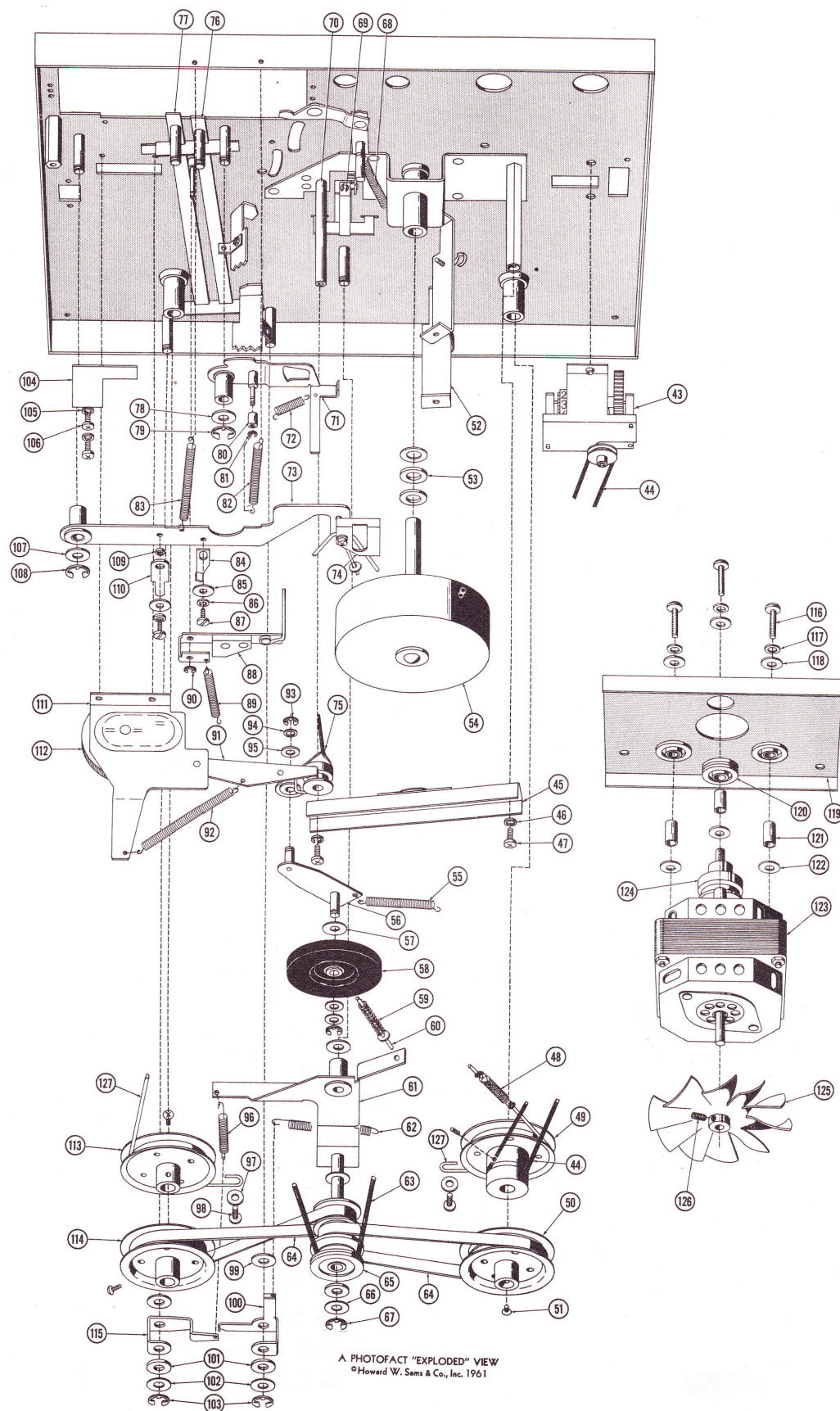


FIG.3B EXPLODED VIEW OF PARTS BELOW BASE PLATE

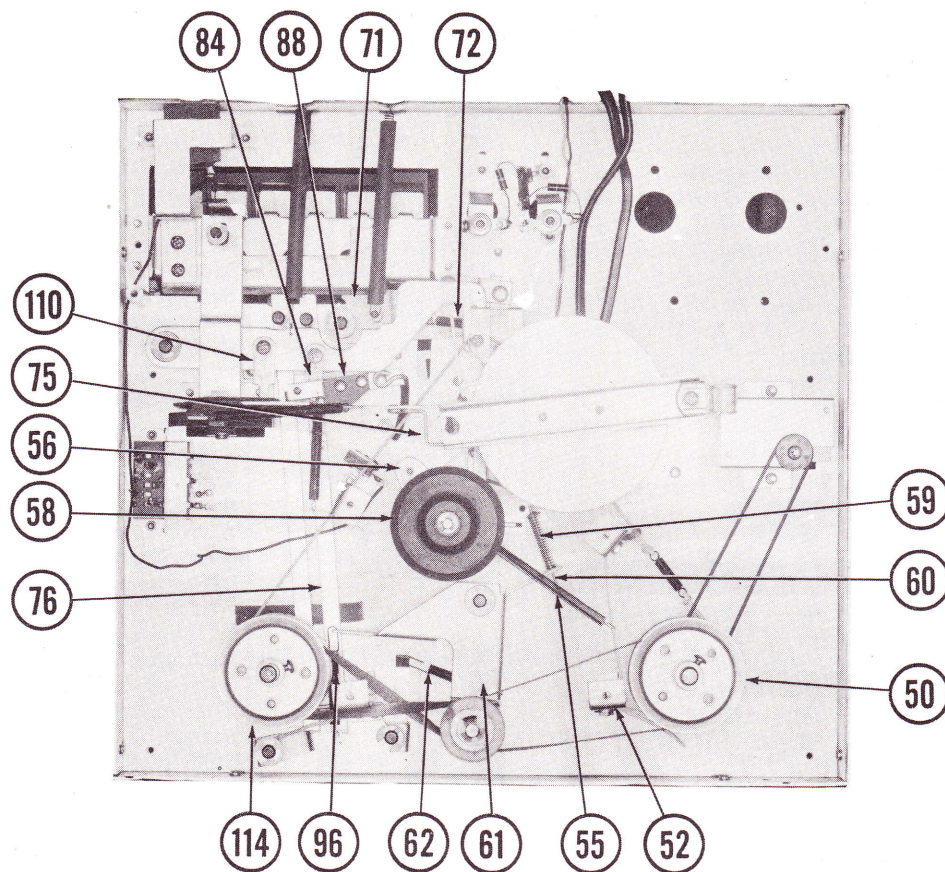


FIG. 4 BOTTOM VIEW OF MECHANISM WITH MOTOR MOUNTING PLATE REMOVED

MECHANICAL PARTS LIST

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1		On-Off-Volume Stereo Knobs	22	TR-1846	Pressure Roller
2		VU Meters	23		Washer
3		Screw, 6-32 x 1/4 Phil. Truss. Hd.	24	TG-476	Right Tape Guide Post
4	TP-1249	Dress Plate	25	TH-584	Record-Play Head 1/4 Track Stereo
5		Escutcheon	26	TB-2130	Record Head Pressure Pad Bracket
6		Escutcheon Screw	27		Screw, 6 x 3/8 Hex Sheet Metal Type Z
7	TS-2152	Spindle	28	5133-12	Retaining Ring
8		Washers	29	TB-2137	Erase Head Pad Bracket
9		Ball Race	30	TB-1067	Pressure Roller Stop Plate Brkt.
10	5133-25	Retaining Ring	31		Erase Head - 1/4 Track
11		Washer .255 I.D. x 1/2 O.D. x .010 Thick Steel	32	TG-461	Left Tape Guide Post
12	TA-1488	Pressure Roller Plate Ass'y.	33	TL-354-1	Stop Pushbutton Lever
13	TB-2151	Motor Board	34	TA-1560	Record Switch Lever
14	TE-276-3	Rear Escutcheon	35	TL-354	Pushbutton Lever
15		Pushbuttons	36		Washer .203 I.D. x 3/8 O.D. x 1/32
16	TS-1993	Erase Head Pressure Pad Spring	37	TS-1986	Record Switch Spring
17	TS-1902	Record Head Pressure Pad Spring	38	5133-18	Retaining Ring
18	TA-1349	Pushbutton Ass'y. Bracket	39	TB-2152	Erase Head Bracket
19	TS-1985	Pushbutton Spring	40		Tape Guide Wire
20	5133-25	Retaining Ring	41	TS-1984	Pushbutton Latch Spring
21		Washer, .255 I.D. x 1/2 O.D. x .010	42	TB-2028	Record-Play Head Mtg. Brkt.

MECHANICAL PARTS LIST (CON'T.)

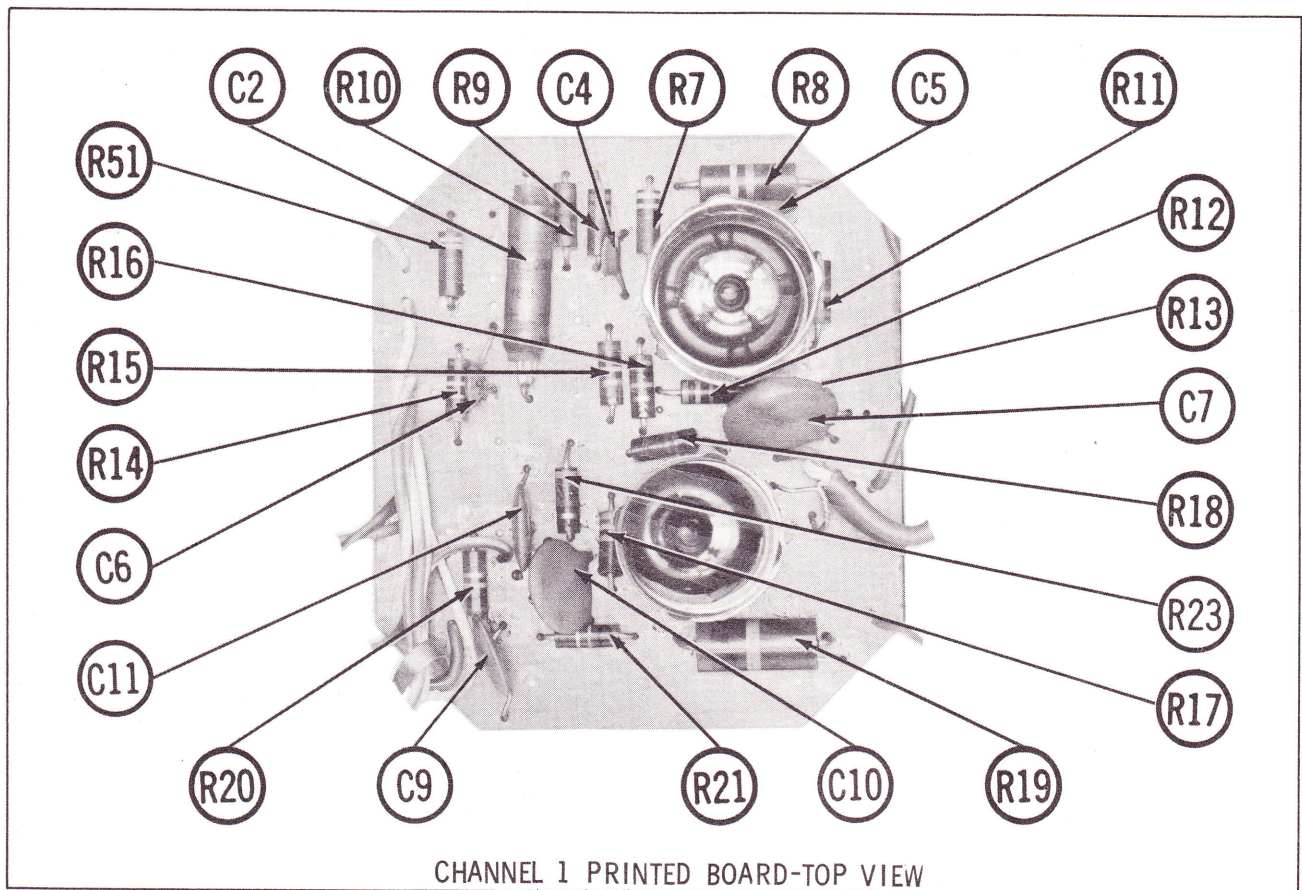
Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
43	TC-1747	Counter Ass'y.	88	TA-1170-1	Automatic Shutoff Bracket Ass'y.
44	TR-1614	Counter Drive Belt	89	TS-1993	Automatic Stop Spring
45	TA-1252	Flywheel Thrust Plate Ass'y.	90	5133-12	Retaining Ring
46		No. 6 Lockwasher	91		Speed Selector Lift Lever (Part of Item 111)
47		Screw, 6-32 x 1/2 Phil. Bdg.	92	TS-1980	Speed Selector Spring
48	TS-2085	Brake Cord Spring	93	5133-18	Retaining Ring
49	TA-1183	Counter and Brake Pulley Ass'y.	94		Washer, .192 I.D. x 3/8 O.D. x .010 Thick
50	265	Spindle Pulley for Drive Belt	95		Fiber Washer
51		Set Screw	96	TS-1981	Rewind Spring
52	TB-2180	Motor Mounting Bracket	97		Washer, No. 6 I.D. x 7/16
53		Washer	98		Screw, 6 x 3/8 Hex. Sheet Metal Type Z
54	TF-324	Flywheel	99		Washer, .225 I.D. x 1/2 O.D. x .010 Thick
55	TS-1993-1	Idler Wheel Spring	100	TL-346	Wind Spring Link
56	TA-1174	Idler Arm Pivot Ass'y.	101		Fiber Washer
57		Fiber Washer	102		Washer, .225 I.D. x 1/2 O.D. x .010 Thick
58*	TW-424*	*Idler Wheel	103	5133-25	Retaining Ring
59	TS-2041	Takeup Compression Spring	104	TL-361	Solenoid Arm Lever
60	TA-1225	Idler Release Rod Ass'y.	105		Lockwasher
61	TA-1163	Idler Pulley Arm Ass'y.	106		Screw
62	TS-1981	Wind Spring	107		Steel Washer
63*	TR-1548*	*Idler Drive Belt	108	5133-25	Retaining Ring
64	TB-1018	Wind or Rewind Belt	109	TS-2170	Speed Selector Locking Plate
65	TA-1489	Idler Pulley Ass'y.			Spacer
66	TW-454	Fiber Thrust Washer	110	TP-1008	Speed Selector Locking Plate
67	5133-25	Retaining Ring	111	TA-1251	Speed Selector Bracket Ass'y.
68	TS-1988	Pause Linkage Spring	112	TC-1741	Speed Selector Wheel
69	TS-2086	Swivel Head Lifter Shaft	113	TA-1164	Brake Pulley
70	TS-1911	Idler Elevation Shaft	114	265	Spindle Pulley for Drive Belt
71	TA-1176-1	Play Lever and Cam Ass'y.	115	TL-367	Rewind Spring Link
72	TS-2244	Pressure Roller Tension Spring	116		Motor Mounting Screw
73	TA-1173-1	Brake Arm Ass'y.	117		Lockwasher
74	TB-1050	Brake Cord Retainer Bracket	118		Flat Washer
75	TA-1172	Idler Arm Support Speed Change Assembly	119		Motor Mounting Plate
76	TR-1615	Push Rod	120		Grommet
77	TR-1615	Push Rod	121		Spacer
78		Washer	122		Washer
79	5133-25	Retaining Ring	123		Motor
80	TR-1416	Switch Cam Roller	124		Motor Pulley
81	5133-12	Retaining Ring	125		Fan
82	TS-2245	Cam Lever Spring	126		Set Screw
83	TS-1990	Brake Spring	127	TB-1093	Brake Cord, Dacron 24" Long
84	TA-1169	Automatic Stop Actuator			
85		Washer, 6 x 3/8 x 1/32 Fl. Steel			
86		No. 6 Lockwasher			
87		Screw, 6-32 x 3/8 Phil. Bdg. Hd. Mach.			

* Idler Wheel-WALSCO

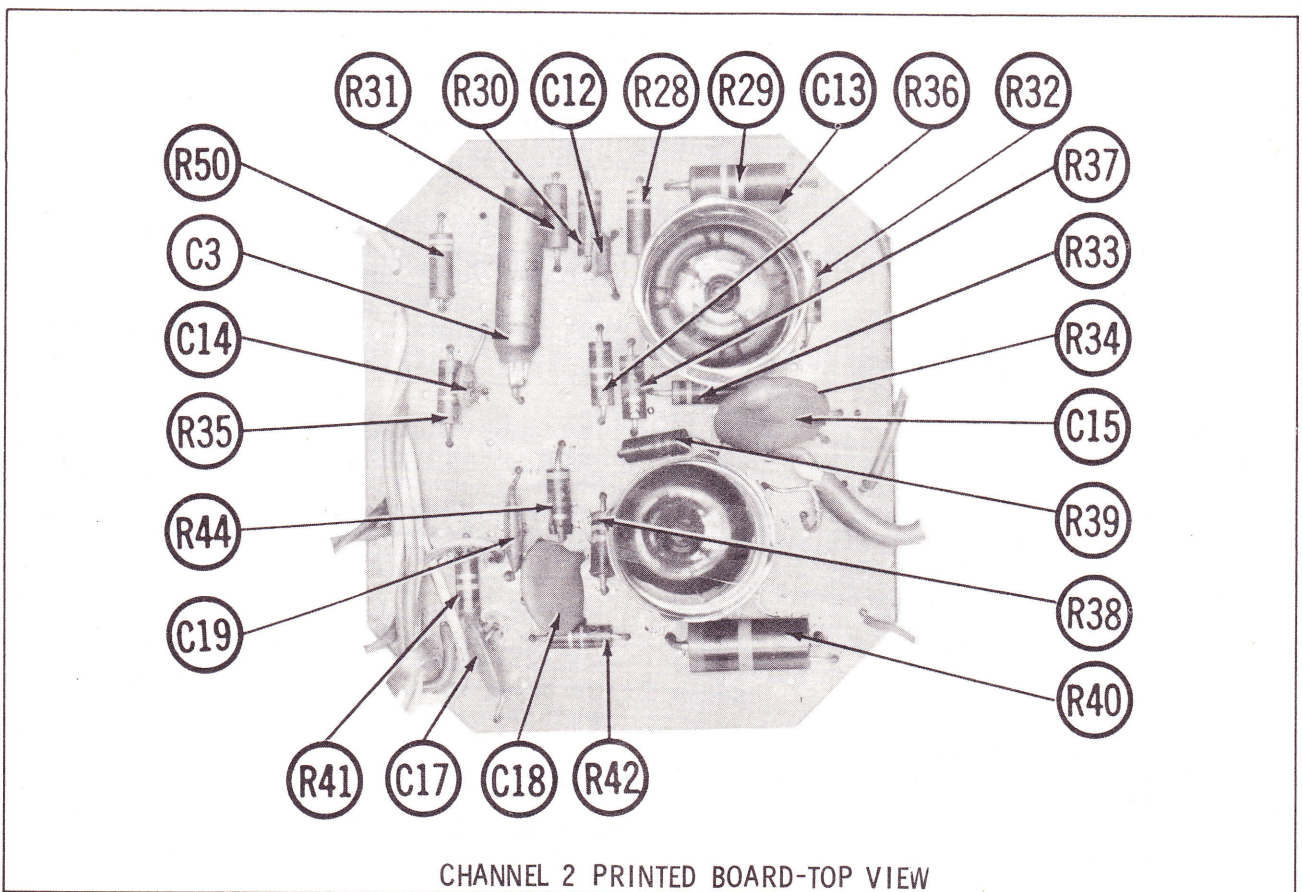
Part No. 1475

Idler Drive Belt-WALSCO

Part No. 1410-06



CHANNEL 1 PRINTED BOARD-TOP VIEW



CHANNEL 2 PRINTED BOARD-TOP VIEW

KNIGHT
MODEL KN-4060 (92RU774)

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ELECT. PARTS LIST AND DESCRIPTIONS

TUBES

* GENERAL ELECTRIC *			* RAYTHEON *			* SYLVANIA *		
ITEM No.	USE	TYPE	ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V1	Channel 1 Preamp.	12AX7/ ECC83	V4	Channel 2 AF Amp.	12AU7/ ECC82			
V2	Channel 1 AF Amp.	12AU7/ ECC82	V5	Bias Oscillator	12AU7/ ECC82			
V3	Channel 2 Preamp.	12AX7/ ECC83	V6	Rectifier	6X4			

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						NOTES
	CAP.	VOLT.	KNIGHT PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SPRAGUE PART No.	
C1A	60	350	TC-2054	PR4-450	BBRQ0789.5	WT458	CDBQ-4422	TVA-4618	
B	80	300							
C	40	300							
C2	50	3		PTT-3050	NLW50-3	TT6X50	MLV50-3	TE-1058	
C3	50	3		PTT-3050	NLW50-3	TT6X50	MLV50-3	TE-1058	

FIXED CAPACITORS

Capacity values given in the rating column are in mfd. for Paper Capacitors, and in mmfd. for Mica and Ceramic Capacitors.

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCOR PART No.	MALLORY PART No.	SPRAGUE PART No.
C4	200 10%		DI-200	DD-201	LI0T2	CCD-201	GP320	10TS-T20
C5	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C6	820 10%		DI-820	DD-821	5R5T82	CCD-821	GP382	10TS-T82
C7	20000		BPD-02	DD-203	BYB6S2	CCD-203	B-120	5HK-S20
C8	.1 200V		P288N-1	DF-104	CUB2P1	2DP-3-104	GEM-201	2TM-P10
C9	3000 10%		DI-3000		1R5D3	CCD-302	JL-233	10TS-D30
C10	2000 10%		DI-2000		5R5D2	CCD-202	JL-222	10TS-D20
C11	3000 10%		DI-3000		1R5D3	CCD-302	JL-233	10TS-D30
C12	200 10%		DI-200	DD-201	LI0T2	CCD-201	GP320	10TS-T20
C13	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C14	820 10%		DI-820	DD-821	5R5T82	CCD-821	GP382	10TS-T82
C15	20000		BPD-02	DD-203	BYB6S2	CCD-203	B-120	5HK-S20
C16	.1 200V		P288N-1	DF-104	CUB2P1	2DP-3-104	GEM-201	2TM-P10
C17	3000 10%		DI-3000		1R5D3	CCD-302	JL-233	10TS-D30
C18	2000 10%		DI-2000		5R5D2	CCD-202	JL-222	10TS-D20
C19	3000 10%		DI-3000		1R5D3	CCD-302	JL-233	10TS-D30
C20	100 10%		DI-100	DD-101	LI0T1	CCD-101	GP310	10TS-T10
C21	100 10%		DI-100	DD-101	LI0T1	CCD-101	GP310	10TS-T10
C22	300 10%							
C23	280max.	#TC-2007	1469-0003	TCZ-300	5R5T3	CM-19B-301K	MCB241	MS-33
C24	280max.	#TC-2007				464		
C25	280max.	#TC-2007				464		

Knight Part Number.

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA					INSTALLATION NOTES
	RESISTANCE	WATTS	KNIGHT PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.	
RIA	200K	1/2	TP-1352-1	B-51	A47-250K-Z	Q13-130	U44	Volume, Channel 1
B	Shaft			Not Req.	KSS-3	Not Req.	US-26	
C	Switch			KR-1	SWE-12	76-1	U44	Power Off-On
R2A	200K	1/2	TP-1353-1	B-51	A47-250K-Z	Q13-130	U44	Volume, Channel 2
B	Shaft			Not Req.	KSS-3	Not Req.	U2	
R3A	500Ω	1/2	TP-1152	B-4	A47-500-S	Q11-103	Not Req.	Hum Balance
B	Shaft			Not Req.	FKS-1/4	Not Req.	U2	
R4A	500Ω	1/2	TP-1152	B-4	A47-500-S	Q11-103	Not Req.	Hum Balance
B	Shaft			Not Req.	FKS-1/4	Not Req.	U2	

RESISTORS

All wattages 1/2 watt, or less, unless otherwise listed.

ITEM No.	RATING	REPLACEMENT DATA			ITEM No.	RATING	REPLACEMENT DATA		
		IRC PART No.	WORKMAN TV PART No.	REMARKS			IRC PART No.	WORKMAN TV PART No.	REMARKS
R5	470K				R31	10Ω			
R6	47K				R32	10meg			
R7	4.7meg				R33	68K			
R8	220K 1W				R34	100K			
R9	1500Ω				R35	100K			
R10	10Ω				R36	68K			
R11	10meg				R37	30K			
R12	68K				R38	68K			
R13	100K				R39	2200Ω			
R14	100K				R40	10K 2W			
R15	68K				R41	10K			
R16	30K				R42	10K			
R17	68K				R43	10K			
R18	2200Ω				R44	620Ω			
R19	10K 2W				R45	47K			
R20	10K				R46	1000Ω 1W			
R21	10K				R47	100K			
R22	10K				R48	100K			
R23	620Ω				R49	3300Ω 1W			
R24	47K				R50	4.7meg			
R25	15K				R51	4.7meg			
R26	470K				R52	100Ω			
R27	47K				R53	100Ω			
R28	4.7meg				R54	47K			
R29	220K 1W				R55	15K			
R30	1500Ω				R56	2200Ω 1W			

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		KNIGHT PART No.	Merit PART No.	Miller PART No.	Stancor PART No.	Workman TV PART No.	
L1	Equalizer	TC-1947					
L2	Equalizer	TC-1947					
L3	Bias Osc.	TC-1937					

TRANSFORMER (POWER)

ITEM No.	RATING			REPLACEMENT DATA					NOTES
	PRI.	SEC. 1	SEC. 2	KNIGHT PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T1	117V @ .3A	600VCT @ .040A DC	6.3V @ 2.3A	TT-77L		PC-8406 ①			① Drill New Mounting hole(s).

SIGNAL DIODES

ITEM No.	ORIG. TYPE	REPLACEMENT DATA				NOTES
		KNIGHT PART No.	GENERAL ELECTRIC PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
M1		TR-2005 *				* Meter Rect. Bridge
M2		TR-2005 *				

ELECT. PARTS LIST AND DESCRIPTIONS (Continued)

MISCELLANEOUS

ITEM No.	PART NAME	KNIGHT PART No.	NOTES
M3	Head	TH-584	Record-Playback
M4	Head	TH-590	Erase
M5	Switch	TS-3016-1	Function Selector (Rotary Type)
M6	Switch	TS-2223	Playback-Record (Rotary Type) Channel 1
M7	Switch	TS-2249	Level (4PDT Slide Type)
M8	Switch	TS-1999	Cutoff (Leaf Type)
M9	Switch	TS-2223	play-back -Record (Rotary Type) Channel 2
M10	VU Meter	TM-461	Channel 1
M11	VU Meter	TM-461	Channel 2
M12	Solenoid	TC-1789-1	Automatic Shutoff
M13	Motor & Flywheel Assembly	TA-1462	
M14	Switch		Equalization (7 1/2" - 3 3/4")

CABINETS & CABINET PARTS

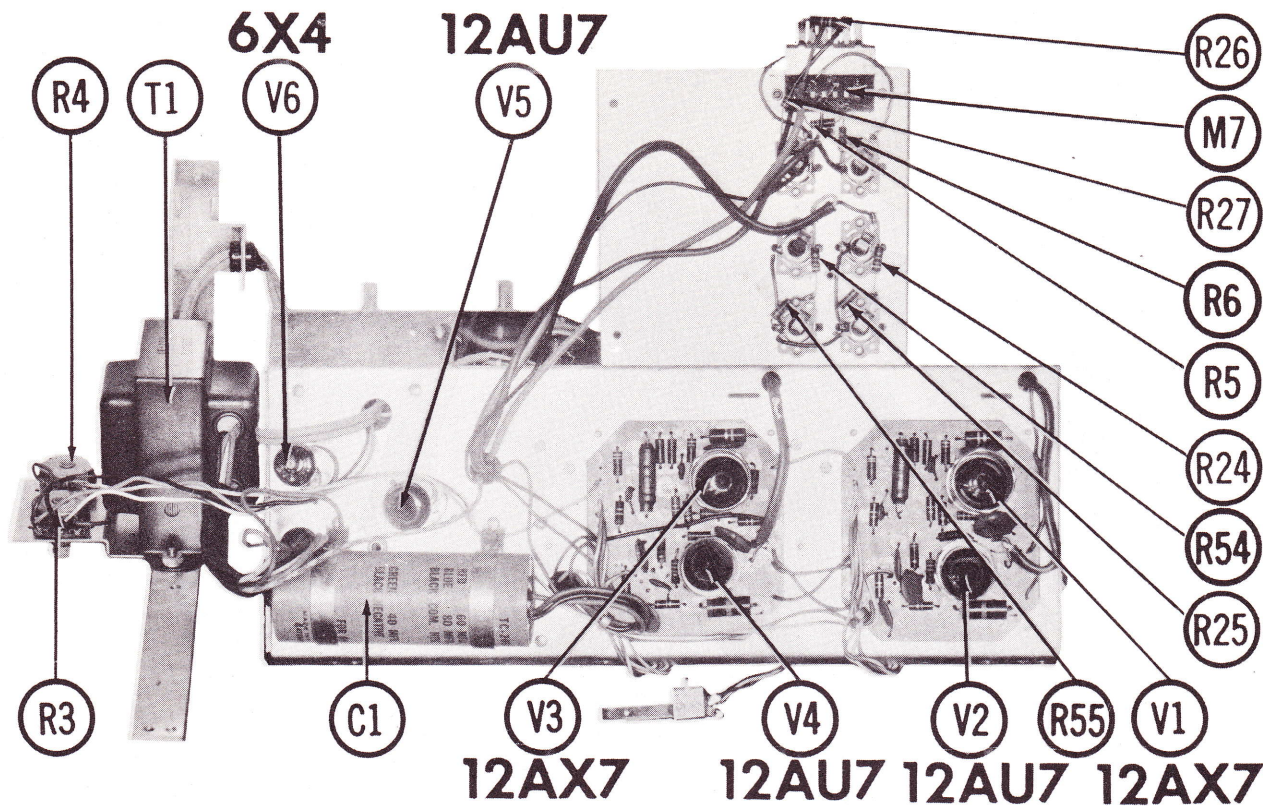
(When Ordering Cabinets & Cabinet Parts, Specify Model, Chassis & Color)

NAME	PART NO.	DESCRIPTION
Knob	TK-276	
Pushbutton	TB-1010	
Cabinet	TC-2156	

WIRING DATA

General-use Unshielded Hook-up Wire	Use BELDEN NO. 8530 (Solid) Available in Ten Colors
Power Cord	8524 (Stranded) Available in Ten Colors
	1765-B (6 Ft. Length)
	1725-K (7 1/2 Ft. Length)
Low-Loss Shielded Lead (Interconnecting)	Use BELDEN NO. 8401
Phono Pick-up Arm Cable	Use BELDEN NO. 8430 (Two Conductor - Twisted)

ELECT. CHASSIS—TOP VIEW



KNIGHT
MODEL KN-4060 (92RU774)